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10/616,459	07/09/2003	Chad A. Ryan	47079-00191	1053

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EXAMINER

DEODHAR, OMKAR A

ART UNIT	PAPER NUMBER
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3714

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/616,459

Applicant(s)

RYAN, CHAD A.

Examiner

Omkar A. Deodhar

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10 and 32-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-10 and 32-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/19/2007.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

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DETAILED ACTION

Final Rejection

Claim Objections

As an initial matter, the claim listing is improper. Claims 11-32 are identified as cancelled, however, the new claims commence at claim 32. The new claims should commence at claim 33. Appropriate correction is required in the event that Applicant submits future claim amendments.

Claim 6 recites "reading the next...without authenticating the graphic data and authenticating said **graphic data**." Examiner has interpreted this to mean "...without authenticating the graphic data and authenticating said **executable data**."

Claim 49 depends on claim 4. Did applicant intend on Claim 49 being dependent from Claim 47?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Crouce (US Pub. No.: 2003/0188231 A1).

Cronce is directed towards code/data validation and is thus applicable to data residing in a memory device of a gaming machine.

Claim 1:

A method of authenticating memory devices' data within a gaming machine while said gaming machine is operating, (Paragraph 7 - Cronce discloses that data is validated or authenticated during execution), said memory devices' data being authenticated substantially in parallel, (this limitation is disclosed in that the allocation of multiple computing resources is inherent in the process of data authentication), said method of authenticating comprising:

reading a next predetermined amount of data from a first memory device storing executable code and graphic data, (Figure 3b – Item 310 discloses reading data from memory), determining if the next predetermined amount of data is executable code or graphic data;

if said next predetermined amount of data is graphic data, then reading a next predetermined amount of data, without authenticating the graphic data;

if said next predetermined amount of data is executable code, then authenticating said executable code, (Data is received for processing by a wrapping tool. This tool detects symbols that define the start and end of data blocks to be subject to runtime checksum validation. In this manner, executable code will be subject to verification and graphics code will not be verified. Please also refer to discussion in Paragraph 30); and

wherein the above steps are repeated substantially continuously while said gaming

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machine is operating, (Cronce discloses that data blocks are continually scanned during the operation of the application, Paragraph 52.)

Claim 3:

Cronce discloses that the verification process continues until the data cannot be authenticated, (Figure 9, Items 904 and 905 disclose a flowchart showing that the process continues until completed.)

Claim 4:

This is inherent in that a file is simply binary coded data.

Claim 5:

Various memory devices are disclosed, (Paragraph 66.)

Claim 6:

Paragraph 30 – Only executable code (sets of exported symbols defined by start and end blocks) are subject to the verification.

Claim 7:

The method of claim 1, further comprising:

reading a next second-predetermined amount of data from a second memory device, (Paragraph 66 – Cronce discloses a plurality of memory devices to which data may be written);

and determining whether said next-second predetermined amount of data is authentic; repeating said reading said next second-predetermined amount of data from the second memory device step and said determining whether said next second-predetermined amount of data steps continuously while said gaming machine is operating, wherein

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said reading said next predetermined amount of data step and said reading said next second-predetermined amount of data step are performed substantially in parallel, (Please refer again to Figure 9 – Items 904 and 905, where Cronic discloses that blocks of data are repeatedly verified. This verification takes place in parallel, in that the verification process takes place continually and consumes multiple resources.)

Claim 8:

Cronic discloses the limitations of Claim 8 as presented above, and additionally:

The usage of cryptographic hash functions such as MD5, (Message-Digest Algorithm 5, Paragraph 20).

Claim 9:

Cronic discloses continuous verification during execution, (Paragraph 7.)

Claim 10:

The predetermined amount of time is determinable by the programmer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 32-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cronic, (US Pub. No.: 2003/0188231 A1) in view of Zhao (US 6,487,301).

Claims 32, 40, 47 and 48:

Cronic discloses that a programmer may customize the verification process, (Paragraph 70). This is interpreted as disclosing that a programmer is able to designate that the verification process takes place during the boot-up process.

Additionally, Cronic discloses execution of verification routes based on combinations of events that occur with sufficient frequency to ensure reliable detection, (Paragraph 42.)

Cronic discloses the invention substantially as claimed, but is silent regarding the verification of graphics data. Zhao discloses the authentication of graphics data, (Abstract & Figures 2-5). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to authenticate graphics data for the purpose of preventing a person from copying a digital representation without degradation, manipulating the graphics data and redistributing the graphics data without authorization from the owner. Additionally, one would be motivated to authenticate graphics data to prevent piracy. One would have generated the claimed invention with a reasonable expectation of commercial success.

Claim 33:

Cronic discloses predetermined conditions such as receiving data, (Figure 3b.)

Claim 34-36:

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Cronce discloses data in the form of files, (binary coded data), and data files with verification codes and digital signatures, (Paragraph 20).

Claim 37:

Various memory devices are disclosed, (Paragraph 66.)

Claim 38:

Figure 9 discloses reading blocks of data prior to various determining steps, (as disclosed with respect to claim 1).

Claim 39:

Cronce discloses cryptographic hash functions such as MD5, (Message-Digest Algorithm 5, Paragraph 20).

Claim 41-46:

Please refer to the rejections of claims 33-39 regarding limitations of predetermined intervals, volatile memory devices, hash functions and verification codes with digital signatures.

Claims 49 and 50:

Please refer to the rejections of claims 34-36 regarding limitations of verification codes and digital signatures.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omkar A. Deodhar whose telephone number is 571-272-1647. The examiner can normally be reached on M-F 8AM – 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on 571-272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Corbett Coburn/
Primary Examiner
AU 3714